

ELECTRONIC SUPPLEMENTARY MATERIAL

Who killed my dog? Use of forensic genetics to investigate an enigmatic case

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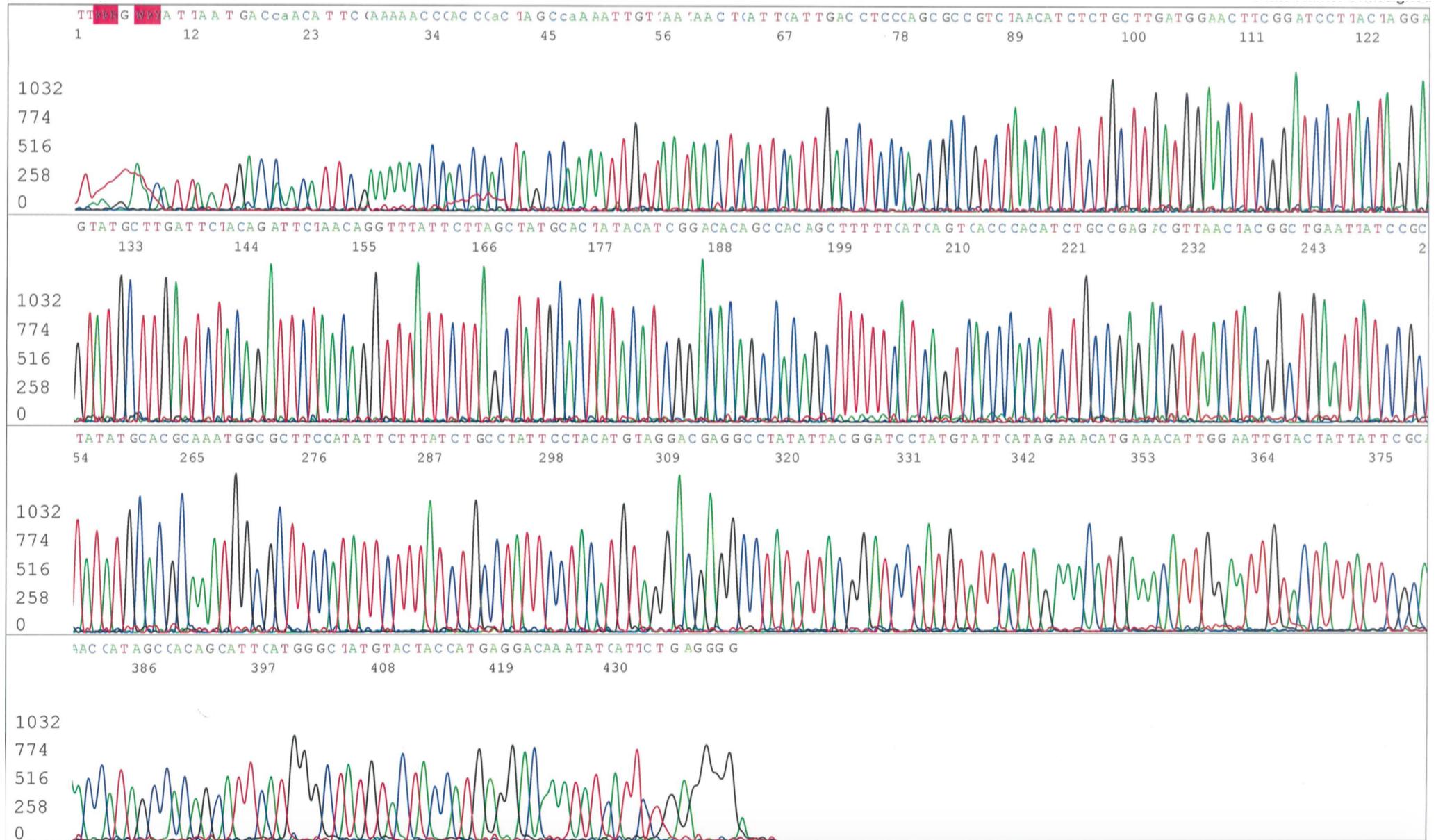


Fig. S1 Electropherogram of the CytB forward sequence from a hair sample entangled in the victim's mouth.

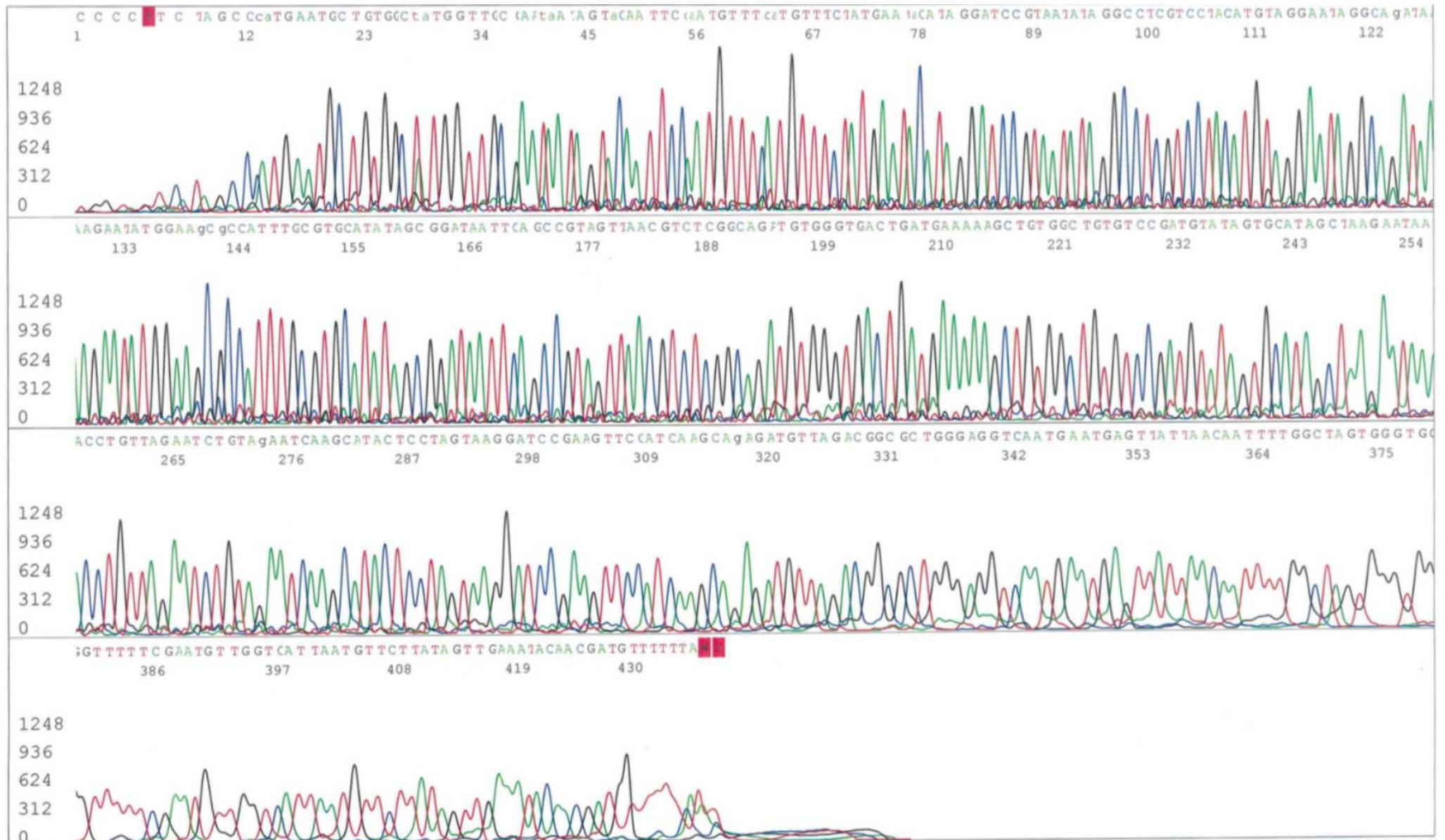


Fig. S2 Electropherogram of the CytB reverse sequence from a hair sample entangled in the victim's mouth.

CATCGTTGTATTCAACTATAAGAACATTAATGACCAACATTGAAAAACCCACCCACTAGCCAAAATTGTTAATAACTCATTGACCTCC
 CAGCGCCGTCTAACATCTGCTTGATGGAACCTCGGATCCTTACTAGGAGTATGCTTACAGATTCTAACAGGTTATTCTTAGCTATG
 CACTATACATCGGACACAGGCCACAGCTTTCATCAGTCACCCACATCTGCCAGACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAA
 ATGGCGCTTCCATATTCTTATCTGCCTATTCCATACATGTAGGACGAGGCCTATTACGGATCCTATGTATTCATAGAACATGAAACATTGGA
 ATTGTACTATTATCGCAACCATAGCCACAGCATTGAGGCTATGTACTACCATGAGGACAAATATCATT

Fig. S3 Consensus sequence originated from the forward and reverse CytB sequences from a hair sample entangled in the victim's mouth.

Canis lupus isolate SK1_3x mitochondrion, partial genome

Sequence ID: [MK937053.1](#) Length: 16430 Number of Matches: 1

Range 1: 14165 to 14613 GenBank Graphics					▼ Next Match	▲ Previous Match
Score	Expect	Identities	Gaps	Strand		
830 bits(449)	0.0	449/449(100%)	0/449(0%)	Plus/Plus		
Query 1	CATCGTTGTATTCAACTATAAGAACATTAATGACCAACATTGAAAAACCCACCCACTA			60		
Sbjct 14165	CATCGTTGTATTCAACTATAAGAACATTAATGACCAACATTGAAAAACCCACCCACTA			14224		
Query 61	GCCAAAATTGTTAATAACTCATTGACCTCCCAGCGCCGTCTAACATCTGCTTGA			120		
Sbjct 14225	GCCAAAATTGTTAATAACTCATTGACCTCCCAGCGCCGTCTAACATCTGCTTGA			14284		
Query 121	TGGAACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTATT			180		
Sbjct 14285	TGGAACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTATT			14344		
Query 181	TTAGCTATGCACTATACATCGGACACAGCCACAGCTTTCATCAGTCACCCACATCTGC			240		
Sbjct 14345	TTAGCTATGCACTATACATCGGACACAGCCACAGCTTTCATCAGTCACCCACATCTGC			14404		
Query 241	CGAGACGTTAACACTGGCTGAATTATCCGCTATATGCACGCAAATGGCGCTTCATATT			300		
Sbjct 14405	CGAGACGTTAACACTGGCTGAATTATCCGCTATATGCACGCAAATGGCGCTTCATATT			14464		
Query 301	TTTATCTGCCTATTCTACATGTAGGACGAGGCCTATTACGGATCCTATGTATT			360		
Sbjct 14465	TTTATCTGCCTATTCTACATGTAGGACGAGGCCTATTACGGATCCTATGTATT			14524		
Query 361	GAAACATGAAACATTGGAATTGTAATTACGGCAACCATAGCCACAGCATTGAGG			420		
Sbjct 14525	GAAACATGAAACATTGGAATTGTAATTACGGCAACCATAGCCACAGCATTGAGG			14584		
Query 421	TATGTAACCATGAGGACAAATATCATT	449				
Sbjct 14585	TATGTAACCATGAGGACAAATATCATT	14613				

Fig. S4 BLAST alignment results for the consensus CytB sequence from a hair sample entangled in the victim's mouth: *Canis lupus* mitochondrial genome (MK937053.1).

Canis lupus familiaris mitochondrial partial D-loop, isolate TRF.07.03_DMP

Sequence ID: [LR742875.1](#) Length: 16124 Number of Matches: 1

Range 1: 14148 to 14596 [GenBank](#) [Graphics](#)

[▼ Next Match](#) [▲ Previous Match](#)

Score 830 bits(449)	Expect 0.0	Identities 449/449(100%)	Gaps 0/449(0%)	Strand Plus/Plus	
Query 1	CATCGTTGTATTCAACTATAAGAACATTAATGACCAACATTGAAAAACCCACCACTA				60
Sbjct 14148	CATCGTTGTATTCAACTATAAGAACATTAATGACCAACATTGAAAAACCCACCACTA				14207
Query 61	GCCAAAATTGTTAATAACTCATTGACCTCCCAGCGCCGTCTAACATCTGCTTGA				120
Sbjct 14208	GCCAAAATTGTTAATAACTCATTGACCTCCCAGCGCCGTCTAACATCTGCTTGA				14267
Query 121	TGGAACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTATT				180
Sbjct 14268	TGGAACTTCGGATCCTTACTAGGAGTATGCTTGATTCTACAGATTCTAACAGGTTTATT				14327
Query 181	TTAGCTATGCACTATACATCGGACACAGCCACAGCTTTTCATCAGTCACCCACATCTGC				240
Sbjct 14328	TTAGCTATGCACTATACATCGGACACAGCCACAGCTTTTCATCAGTCACCCACATCTGC				14387
Query 241	CGAGACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAATGGCGCTTCCATATT				300
Sbjct 14388	CGAGACGTTAACTACGGCTGAATTATCCGCTATATGCACGCAAATGGCGCTTCCATATT				14447
Query 301	TTTATCTGCCTATTCCCTACATGTAGGACGAGGCCTATATTACGGATCCTATGTATTCTA				360
Sbjct 14448	TTTATCTGCCTATTCCCTACATGTAGGACGAGGCCTATATTACGGATCCTATGTATTCTA				14507
Query 361	GAAACATGAAACATTGGAATTGTACTATTATTCGCAACCATTAGCCACAGCATTGCG				420
Sbjct 14508	GAAACATGAAACATTGGAATTGTACTATTATTCGCAACCATTAGCCACAGCATTGCG				14567
Query 421	TATGTACTACCATGAGGACAAATATCATT	449			
Sbjct 14568	TATGTACTACCATGAGGACAAATATCATT	14596			

Fig. S5 BLAST alignment results for the consensus CytB sequence from a hair sample entangled in the victim's mouth: *Canis lupus familiaris* mitochondrial genome (LR742875.1).